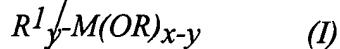


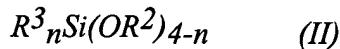
11 --24. A plastic material having at least one face coated with a cured layer of an abrasion or scratch resistant coating composition comprising:

(A) a component which is the reaction product with oxalic acid of at least one organometallic compound of formula:

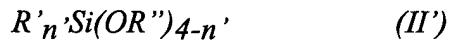


wherein M is a metal, R is H or an alkyl radical, R<sup>1</sup> is a chelating ligand, x is the valency of the metal, y is an integer at least equal to 1 and x-y is at least equal to 1; and

(B) at least one organoalkoxysilane of formula:



wherein R<sup>2</sup> is an alkyl radical, R<sup>3</sup> is an epoxidized alkyl group and n is an integer from 1 to 3, or a mixture of the organoalkoxysilane of formula (II) with an alkoxysilane of formula (II')



wherein n' is an integer from 0 to 3,

R'' is H, an alkyl radical or an alkoxyalkyl radical, and

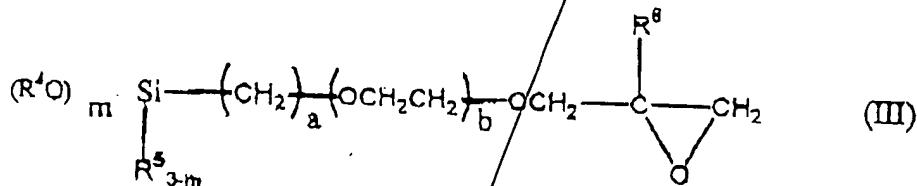
R' is a vinyl, (meth)acryl, aromatic, cyclic or aliphatic alkyl radical.

25. The plastic material substrate according to claim 24, wherein M is selected from Ti, Zr, Sc, Nb, V, Hf, Cr, Y, Al, Ge, Sn, Ta, and W.

26. The plastic material substrate according to claim 24, wherein M is Ti or Zr.

27. The plastic material substrate according to claim 24, wherein  $R^1$  is a ligand produced from a compound of formula  $L^1COCH_2COOL^2$  or  $L^3COCH_2COOL^4$ , wherein  $L^1$ ,  $L^2$ ,  $L^3$ , and  $L^4$  are  $C_1$ - $C_4$  lower alkyl groups.

28. The plastic material substrate according to claim 24, wherein the organoalkoxysilane has formula:



*SUB E1*  
wherein  $R^4$  is an alkyl or alkoxy alkyl group having 1 to 4 carbon atoms;  $R^5$  is an alkyl or aryl group having 1 to 6 carbon atoms;  $R^6$  is H or a methyl group,  $m$  is 2 or 3,  $a$  is an integer from 1 to 6 and  $b$  is 0, 1 or 2.

29. The plastic material substrate according to claim 28, wherein the organoalkoxysilane is selected from the group consisting of  $\gamma$ -glycidoxypropyltrimethoxysilane,  $\gamma$ -glycidoxypropyltriethoxysilane,  $\gamma$ -glycidoxypropylmethyldimethoxysilane,  $\gamma$ -glycidoxypropylmethyldiethoxysilane, and  $\gamma$ -glycidoxethoxypropylmethyldimethoxysilane.

30. The plastic material substrate according to claim 24, wherein components (A) and (B) are further partially or fully hydrolyzed.

31. The plastic material substrate of claim 24, wherein the cured abrasion-resistant layer of the composition as set forth in claim 24 is deposited on top of a first abrasion-resistant coating comprising a (meth)acrylic or polysiloxane cured material.

32. The plastic material substrate of claim 31, wherein the polysiloxane coating is a coating obtained from a hydrolyzate of a silane compound containing an epoxy group and at least two alkoxy groups directly linked to silicon.